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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/686,681	10/17/2003	Riku Pulli	47121-0086-00 (215742)	8300

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EXAMINER	
PRAKASAM, RAMYA G	

ART UNIT	PAPER NUMBER
3651	

MAIL DATE	DELIVERY MODE
10/20/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/686,681	PULLI ET AL.	
	Examiner	Art Unit	
	RAMYA PRAKASAM	3651	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 June 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *12-15,17-19,21 and 22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *22* is/are allowed.

6)☒ Claim(s) *12-15,17-19 and 21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. The amendment filed on 6/19/2009 has been entered.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior office action.

Claim Rejections - 35 USC § 103

3. Claims 12-15, 17-19 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burns (U.S. Patent No. 6,442,456) in view of Stentz (U.S. Patent No. 6,363,632).

Burns et al. '456 disclose a control system for automatically guide autonomous movements of a dumper truck 32 and a loading vehicle 10 (Figure 6). The controller maneuvers the dumper truck and the loading vehicle to a position that enables the loading of the dumper truck 32 by the loading vehicle 10. However, Burns et al. is silent as to the specifics of the actual loading of material into the dumper truck.

Stentz et al. '632 disclose an automated system for loading material autonomously from a loading vehicle to a dump truck (Figures 3 and 4). The system comprises means for locating the location of dump truck prior to the actual loading of .said truck. The system comprises means for measuring the shape and height of the deposited load on the dump truck to facilitate subsequent material loading, and to enable an evenly distributed load (Figures 2 and 8-10).

It would have been obvious for a person with ordinary skill in the art, at the time the invention was made, to have provided to Burns et al. '456 with the

material loading system per Stentz et al. '632 because it facilitates autonomous means for loading material into a dump truck.

It is obvious that the autonomously operated dumper truck would have to be stopped at a predetermined loading area to facilitate the loading of the truck. It would have been obvious to determine the predetermined loading site prior to the arrival in the loading area in order to determine where the material needed to be loaded.

In regards to claim 17, it is obvious that the loading vehicle could be guided to approach the dumper truck from any directions, including a transverse direction from the truck, as shown by Stentz et al. '632.

In regards to claim 21, it is obvious that the load within the autonomously driven dumper truck would have to be emptied at a predetermined area.

4. Claims 12 and 15-19, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burns (U.S. Patent No. 6,442,456) in view of Baker (U.S. Patent No. 6,157,889).

Burns eta!. '456 disclose a control system for automatically guide autonomous movements of a dumper truck 32 and a loading vehicle 10 (Figure 6). The controller maneuvers the dumper truck and the loading vehicle to a position that enables the loading of the dumper truck 32 by the loading vehicle 10. However, Burns et al. is silent as to the specifics of the actual loading of material into the dumper truck.

Baker '889 discloses an automated system for loading material autonomously from a loading vehicle to a dump truck. The system comprises

means for locating the location of dump truck prior to the actual loading of said truck. The system comprises means for measuring the weight of the deposited load on the dump truck to facilitate subsequent material loading, and to enable an evenly distributed load.

It would have been obvious for a person with ordinary skill in the art, at the time the invention was made, to have provided to Burns et al. '456 with the material loading system per Baker '889 because it facilitates autonomous means for loading material into a dump truck.

It is obvious that the autonomously operated dumper truck would have to be stopped at a predetermined loading area to facilitate the loading of the truck. It would have been obvious to determine the predetermined loading site prior to the arrival in the loading area in order to determine where the material needed to be loaded.

In regards to claim 17, it is obvious that the loading vehicle could be guided to approach the dumper truck from any directions, including a transverse direction from the truck.

5. Claims 12 and 15-19, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baker (U.S. Patent No. 6,157,889) in view of Burns (U.S. Patent No. 6,442,456).

Baker '889 discloses an automated system for loading material autonomously from a loading vehicle to a dump truck. The system comprises means for locating the location of dump truck prior to the actual loading of said truck. The system comprises means for measuring the weight of the deposited

load on the dump truck to facilitate subsequent material loading, and to enable an evenly distributed load. However, it is silent as to the specifics of the dumper truck being autonomously controlled and driven.

Burns et al. '456 disclose a control system for guiding autonomous movements of dumper truck 32 and loading vehicle 10 (Figure 6) within the mining environment. Burns et al. '456 teach that the automatic operation of earthmoving equipments, i.e. dumps trucks and excavators, facilitates high productivity and safety.

It would have been obvious for a person with ordinary skill in the art, at the time the invention was made, to have provided to Baker '889 with the autonomously driven dump truck because it facilitates higher productivity and safety, as taught by Burns et al. '456.

It is obvious that the autonomously operated dumper truck would have to be stopped at a predetermined loading area to facilitate the loading of the truck.

In regards to claim 17, it is obvious that the loading vehicle could be guided to approach the dumper truck from any directions, including a transverse direction from the truck.

6. Claims 12-15, 17-19 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stentz (U.S. Patent No. 6,363,632) in view of Burns (U.S. Patent No. 6,442,456).

Stentz et al. '632 disclose an automated system for loading material autonomously from a loading vehicle to a dump truck (Figures 3 and 4). The system comprises means for locating the location of dump truck prior to the

actual loading of said truck. The system comprises means for measuring the shape and height of the deposited load on the dump truck to facilitate subsequent material loading, and to enable an evenly distributed load (Figures 2 and 8-10).

Burns et al. '456 disclose a control system for guiding autonomous movements of dumper truck 32 and loading vehicle 10 (Figure 6) within the mining environment. Burns et al. '456 teach that the automatic operation of earthmoving equipments, i.e. dumps trucks and excavators, facilitates high productivity and safety.

It would have been obvious for a person with ordinary skill in the art, at the time the invention was made, to have provided to Stentz et al. '632 with the autonomously driven dump truck because it facilitates higher productivity and safety, as taught by Burns et al. '456.

It is obvious that the autonomously operated dumper truck would have to be stopped at a predetermined loading area to facilitate the loading of the truck. It would have been obvious to determine the predetermined loading site prior to the arrival in the loading area in order to determine where the material needed to be loaded.

In regards to claim 17, it is obvious that the loading vehicle could be guided to

approach the dumper truck from any directions, including a transverse direction from the truck.

Allowable Subject Matter

7. Claim 22 is allowed.

8. The following is an examiner's statement of reasons for allowance: Claim 22 provides for two separate predetermined loading sites in which one loading site is for stopping the dumper so that material transported by a loader can be emptied and the second is so that the loader can empty material into another area of the dump box, the two predetermined loading sites are both selected prior to the dumper or loader arriving in the loading area. These limitations, in combination with the other limitations in the claims, were not found in the relevant prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Response to Arguments

9. Applicant's arguments filed on 9/2/2008 have been fully considered but they are not persuasive.

10. With regards to applicant's argument that the predetermined loading site is selected prior to the arrival in the loading area of either the loader and the dumper, in Burns, Stentz, and Baker the controller FIRST determines the loading site, then the excavator is moved to that particular location. The loading area is the particular location in which the loading will be performed, in which the loader

moves to the particular location that is deemed the loading area based on the controller's determination. Therefore, the claims stand rejected.

Conclusion

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RAMYA PRAKASAM whose telephone number is (571)272-6011. The examiner can normally be reached on Monday - Thursday, 9am - 6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene Crawford can be reached on (571)272-6911. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Gene Crawford/
Supervisory Patent Examiner, Art Unit 3651

10/16/2009
RGP